

## **Listing of Claims**

1-3 (CANCELED)

1 4. (Previously Presented) A system for developing an application user interface, the system  
2 comprising:  
3 an integrated development environment configured for a developer to specify a user  
4 interface element in the application user interface, the user interface element  
5 having a user customizable property, the application user interface being  
6 configured as an interface between an internet application and a user;  
7 an application designer configured to produce metadata characterizing the customizable  
8 property; and  
9 a data repository including a data record associated with the customizable property, the  
10 data record being modifiable by a user of the internet application and accessible  
11 using the metadata.

1 5. (Previously Presented) The system of claim 4, wherein a state of the user customizable  
2 property is configured to persist between a display of the application user interface and  
3 another display of the application user interface.

1 6. (Previously Presented) The system of claim 4, further including an application server  
2 configured to support the internet application.

1 7. (Currently Amended) The system of claim 4, wherein the integrated development  
2 environment is further configured to associate the user interface element with a procedure

3        within the internet application, the procedure configured to receive data entered by the  
4        user in a field of the user interface element.

1    8. (Previously Presented) The system of claim 4, further including means for generating the  
2        internet application interface.

1    9. (Previously Presented) A system for developing an application user interface, the system  
2        comprising:  
3        an integrated development environment configured for a developer to specify a user  
4                interface element in the application user interface, the user interface element  
5                having a user customizable property, the user customizable property being a  
6                response to a user input device, the application user interface being an interface  
7                between a user and an internet application;  
8        a data repository including a data record configured to store a value characterizing the  
9                user customizable property, the value being user modifiable; and  
10        an application designer configured to produce metadata for accessing the data record.

1    10. (Previously Presented) The system of claim 9, further including an internet application  
2        system configured to support the internet application.

1    11. (Previously Presented) The system of claim 9, wherein a state of the user customizable  
2        property is configured to persist between a displaying of the application user interface  
3        and another displaying of the application user interface.

1 12. (Previously Presented) The system of claim 9, wherein the customizable property is further  
2 responsive to an identity of the user.

1 13. (Previously Presented) A system for developing an internet application user interface, the  
2 system comprising an integrated development environment configured for specifying a  
3 user interface element in the internet application user interface, the user interface element  
4 having a user customizable tab-order property, the integrated development environment  
5 including an application designer configured to produce metadata configured to  
6 characterize the customizable tab-order property.

1 14. (Previously Presented) A system for developing an application user interface associated with  
2 an internet application comprising:  
3 an integrated development environment configured for a developer to specify a user  
4 interface element in the application user interface, the user interface element  
5 having a user customizable tab-order property, the integrated development  
6 environment including an application designer configured to produce metadata to  
7 access a data record; and  
8 a data repository including the data record for storing data characterizing the  
9 customizable tab-order property, the data being user modifiable.

1 15. (Previously Presented) The system of claim 14, wherein the customizable tab-order property  
2 includes tab-over.

1 16. (Previously Presented) The system of claim 15, wherein the integrated development  
2 environment is further configured to specify an additional user interface element in the  
3 application user interface, the additional user interface element specifiable to be skipped  
4 in a tab-order.

1 17. (Previously Presented) The system of claim 16, wherein the additional user interface element  
2 is a button.

1 18. (Previously Presented) The system of claim 16, wherein the additional user interface element  
2 is an image.

1 19. (Previously Presented) The system of claim 14, wherein the customizable tab-order property  
2 is configurable according to a class of user interface elements.

1 20. (Previously Presented) The system of claim 14, wherein the customizable tab-order property  
2 is configurable according to the identity of a user.

1 21. (Previously Presented) The system of claim 14, wherein the customizable tab-order property  
2 is configurable according to the identity of a client.

1 22. (Previously Presented) The system of claim 14, wherein the metadata is configured to  
2 characterize the tab-order property of a specific application component.

1 23. (Previously Presented) The system of claim 14, wherein the metadata includes a query for  
2 accessing the data record.

1 24. (Previously Presented) The system of claim 14, wherein the data is user modifiable using a  
2 personalization system integrated into the internet application.

1 25. (Previously Presented) The system of claim 14, wherein the data record includes a reference  
2 to an additional data record, the additional data record including additional data further  
3 characterizing the customizable tab-order property.

1 26. (Previously Presented) The system of claim 25, wherein the additional data is user  
2 modifiable.

1 27. (Previously Presented) A customizable application system comprising:  
2 an internet application system configured to support an internet application;  
3 an application user interface including a user interface element, the application user  
4 interface configured as an interface between the internet application and a user,  
5 the user interface element including a user customizable tab-order property, the  
6 user interface element configured for delivery to a client over a computer  
7 network;  
8 metadata characterizing the customizable tab-order property; and  
9 a data repository including a data record configured to store a value characterizing the  
10 customizable tab-order property, the value being user modifiable.

1 28. (Previously Presented) The customizable application system of claim 27, wherein the client  
2 is configured to display the application user interface using standard web browser  
3 protocols.

1 29. (Previously Presented) The customizable application system of claim 27, wherein the client  
2 is configured to display the application user interface using features of a web browser,  
3 the features not requiring a browser add-on, plug-in, or extensions.

1 30. (Previously Presented) The customizable application system of claim 27, further including  
2 means for generating the application user interface using the metadata.

1 31. (Previously Presented) The customizable application system of claim 27, wherein the data  
2 record includes additional metadata.

1 32. (Previously Presented) The customizable application system of claim 27, further including a  
2 personalization system configured to modify the data record.

1 33. (Previously Presented) The customizable application system of claim 32, wherein the data  
2 repository includes a user profile configured to store personalization data generated using  
3 the personalization system.

1 34. (Previously Presented) An internet application system comprising:  
2 a user interface generator configured to generate a user interface including a user  
3 interface element, the user interface being compatible with a standard web  
4 browser and being generated in response to a request from a user, the user  
5 interface element including a user customizable tab-order property;  
6 a web application server configured to deliver the user interface to a client; and  
7 an internet application accessible to the user through the generated user interface.

1 35. (Previously Presented) The internet application system of claim 34, wherein the user  
2 interface generator is further configured to use metadata for characterizing the  
3 customizable tab-order property.

1 36. (Previously Presented) The internet application system of claim 34, wherein the  
2 customizable tab-order property includes tab-over.

1 37. (Previously Presented) The internet application system of claim 34, wherein the user  
2 interface generator is further configured to use metadata for characterizing the tab-order  
3 property, the metadata including a reference to a data record, the data record including a  
4 user defined parameter.

1 38. (Previously Presented) The internet application system of claim 34, wherein the user  
2 interface generator is configured to use a user modifiable data record for characterizing  
3 the tab-order property.

1 39. (Previously Presented) The internet application system of claim 34, wherein the internet  
2 application includes a configuration system configured to modify data characterizing the  
3 tab-order property.

1 40. (Previously Presented) The internet application system of claim 34, wherein the client is a  
2 wireless system.

1 41. (Previously Presented) An internet application comprising:  
2 a computer program configured to run on an internet application system;

3 an application user interface including a user interface element with a customizable tab-  
4 order property, the application user interface configured for delivery to a client  
5 and to operate as an interface between a user and the internet application;  
6 a user modifiable data record stored in a location physically remote from the client, the  
7 data record configurable for use by a user interface generator to generate the  
8 application user interface, the data record further configurable to characterize the  
9 customizable tab-order property; and  
10 metadata configurable for use by the user interface generator to access the user  
11 modifiable data record.

1 42. (Previously Presented) The internet application of claim 41, wherein the metadata includes a  
2 query.

1 43. (Previously Presented) The internet application of claim 41, wherein the data record is  
2 further configured such that generation of the application user interface is responsive to  
3 an identity of the client.

1 44. (Previously Presented) The internet application of claim 41, wherein the data record is  
2 further configured such that generation of the application user interface is responsive to  
3 an identity of the user.

1 45. (Previously Presented) The internet application of claim 41, wherein the data record is  
2 configurable using a configuration interface.



1 46. (Previously Presented) An application user interface between a user and an internet  
2 application, the application user interface including a user interface element, the  
3 application user interface further being generated using metadata and being configured  
4 for display using a standard web browser, the metadata being configured to access a user  
5 modifiable data record that includes a value characterizing a user customizable tab-order  
6 property, the user interface element including the user customizable tab-order property.

1 47. (Previously Presented) The application user interface of claim 46, wherein the value  
2 characterizing a user customizable tab-order property is dependent on an identity of a  
3 user of the application user interface.

1 48. (Previously Presented) The application user interface of claim 46, wherein the user  
2 customizable tab-order property includes tab-over configurable to be responsive to a class  
3 of user interface elements.

1 49. (Previously Presented) The application user interface of claim 46, wherein the application  
2 user interface is a user profile interface.

1 50. (Previously Presented) The application user interface of claim 46, further including means  
2 for displaying the application user interface.

1 51. (Previously Presented) A customizable application system comprising:  
2 an internet application system configured to support an internet application, the internet  
3 application including metadata configured for generating an application user  
4 interface with a user interface element, the internet application system including,

5 a) an application server configured to generate the application user  
6 interface, and  
7 b) a web application server configured to deliver the application user  
8 interface to a client;  
9 an application development system configured to generated the metadata, the metadata  
10 being further configured to access configuration data characterizing a tab-order  
11 property of the user interface element;  
12 a configuration system including a configuration engine and a configuration interface, the  
13 configuration interface configured to modify the configuration data;  
14 a data repository including a data record for storing the configuration data, the data  
15 record being accessible using the metadata.

1 52. (Previously Presented) A customizable application system comprising:

2 an internet application system configured to support an internet application, the internet  
3 application associated with metadata configured for generating an application user  
4 interface including a plurality of user interface elements having a tab-order  
5 property, the internet application system including,

6 a) an application server configured to generate the application user  
7 interface, and  
8 b) a web application server configured to deliver the application user  
9 interface to a client;  
10 a personalization system including a personalization engine and a user profile interface,  
11 the personalization interface configured for modification of personalization data

12 characterizing the tab-order property such that the tab-order of the plurality of  
13 user interface elements is modified; and  
14 a data repository including a data record for storing the personalization data, the data  
15 record being accessible using the metadata.

1 53. (Previously Presented) A method of developing a user interface element, the method  
2 comprising the steps of:  
3 selecting a customizable property;  
4 including the customizable property in the user interface element;  
5 determining a data record for holding a value to characterize the customizable property,  
6 the data record being stored in a data repository and being user modifiable, the  
7 data repository being physically remote from a client used to display an HTML  
8 based application user interface;  
9 generating metadata further characterizing the customizable property, the metadata  
10 including a reference to the data record; and  
11 storing the metadata in association with the user interface element, the user interface  
12 element being configurable for inclusion in the HTML based application user  
13 interface.

1 54. (Previously Presented) The method of claim 53, wherein the application user interface is  
2 configured for accessing an internet application.

1 55. (Previously Presented) The method of claim 54, wherein the step of determining a data  
2 record is responsive to the identity of a user.

1 56. (Previously Presented) The method of claim 54, wherein the user modifiable data record is  
2 configured such that the value used to characterize the customizable property persists  
3 between a generation of the application user interface and another generation of the  
4 application user interface.

1 57. (Previously Presented) The method of claim 54, wherein the customizable property includes  
2 a response to a user input device.

1 58. (Previously Presented) The method of claim 53, wherein the customizable property includes  
2 tab-order.

1 59. (Previously Presented) A method of developing an application user interface associated with  
2 an internet application, the method comprising the steps of:  
3 selecting a user customizable user interface element associated with a data record, the  
4 data record being stored in a data repository and being user modifiable, the data  
5 repository being physically remote from a client used to display the application  
6 user interface;  
7 including the user customizable user interface element in the application user interface;  
8 generating metadata characterizing the user customizable user interface element, the  
9 metadata including a reference to the data record; and  
10 storing the metadata in association with the internet application, the internet application  
11 being configured for access using the application user interface.

1 60. (Previously Presented) The method of claim 59, wherein the application user interface is  
2 generated responsive to the identity of a requestor.

1 61. (Previously Presented) The method of claim 59, wherein the user modifiable data record is  
2 configured such that a value stored in the data record and used to characterize the  
3 customizable property persists between a generation of the application user interface and  
4 another generation of the application user interface.

1 62. (Previously Presented) The method of claim 59, wherein a customizable property of the user  
2 customizable user interface element includes a response to a user input device.

1 63. (Previously Presented) The method of claim 59, wherein a customizable property of the user  
2 customizable user interface element includes tab-order.

1 64. (Previously Presented) A method of generating an application user interface, the method  
2 comprising the steps of:  
3 accessing a page definition, the page definition including metadata for defining a user  
4 customizable property of the application user interface;  
5 obtaining a reference to a user modifiable data record, using the metadata;  
6 accessing the user modifiable data record using the reference, the data record being stored  
7 in a data repository physically remote from a client used to display the customized  
8 application user interface;  
9 reading the data record to determine a value characterizing the user customizable  
10 property;

11 generating markup-language responsive to the value; and  
12 including the generated markup-language in the application user interface.

1 65. (Previously Presented) The method of claim 64, wherein the application user interface is an  
2 interface to an internet application.

1 66. (Previously Presented) The method of claim 64, further including modifying the value using  
2 a configuration system.

1 67. (Previously Presented) The method of claim 64, wherein the user customizable property is a  
2 response to a user input device.

1 68. (Previously Presented) The method of claim 64, wherein the user customizable property is  
2 tab-order.

1 69. (Previously Presented) The method of claim 64, wherein the application user interface is  
2 configurable for display using standard web browser protocols.

1 70. (Previously Presented) A method of customizing tab-order in an HTML based application  
2 user interface, the method comprising the steps of:  
3 accessing a configuration system, the configuration system including a configuration  
4 engine and a configuration interface;  
5 selecting, using the configuration interface, a tab-order property of a user interface  
6 element in the HTML based application user interface, the tab-order property  
7 being user customizable; and

8 specifying configuration data using the configuration interface, the configuration data  
9 characterizing the tab-order property and the configuration data being stored in a  
10 data repository physically remote from a client used to display the HTML based  
11 application user interface, the HTML based the application user interface being an  
12 interface between a user and an internet application.

1 71. (Previously Presented) The method of claim 70, wherein the tab-order property is a tab-over  
2 property.

1 72. (Previously Presented) The method of claim 70, wherein the configuration data is configured  
2 such that a state of the HTML based application user interface persists between a  
3 generation of the HTML based application user interface and another generation of the  
4 HTML based application user interface.

1 73. (Previously Presented) The method of claim 70, further including a step of modifying the  
2 configuration data using a personalization system.

1 74. (Previously Presented) The method of claim 70, wherein the HTML based application user  
2 interface is displayed at the client without requiring a browser add-on, plug-in, or  
3 extension.

1 75. (Previously Presented) A method of customizing tab-order in an application user interface,  
2 the method comprising the steps of:  
3 accessing a configuration system, the configuration system including a configuration  
4 engine and a configuration interface;

5 selecting, using the configuration interface, a tab-order property of a user interface  
6 element in the application user interface, the tab-order property being user  
7 customizable;  
8 specifying configuration data using the configuration interface, the configuration data  
9 characterizing the tab-order property; and  
10 generating the application user interface using the specified configuration data, the  
11 application user interface being HTML based and being configured to access an  
12 internet application.

1 76. (Previously Presented) The method of claim 75, further including displaying the application  
2 user interface using standard web browser protocols.

1 77. (Previously Presented) The method of claim 75, wherein the tab-order property is a tab-over  
2 property.

1 78. (Previously Presented) The method of claim 77, wherein the tab-over property is  
2 configurable responsive to a class of user interface elements.

1 79. (Previously Presented) The method of claim 75, wherein the step of generating the  
2 application user interface is responsive to an identity of a user.

1 80. (Previously Presented) A method of executing an internet application comprising the steps  
2 of:  
3 receiving a request for an application user interface from a client, the application user  
4 interface including a user interface element;



5           accessing a page definition, the page definition including metadata and defining the  
6           requested application user interface;  
7           retrieving a value characterizing a user customizable tab-order property of the user  
8           interface element using the metadata, the value being stored in a data repository  
9           physically remote from the client;  
10          generating HTML responsive to the value;  
11          including the generated HTML in the application user interface; and  
12          delivering the application user interface to the client, the application user interface being  
13          an interface between a user and the internet application.

1   81. (Previously Presented) The method of claim 80, wherein the user customizable tab-order  
2          property is a user customizable tab-over property.

1   82. (Previously Presented) The method of claim 80, wherein the value is personalization data.

1   83. (Previously Presented) The method of claim 80, further including displaying the application  
2          user interface at the client using standard web browser protocols.

1   84. (Previously Presented) The method of claim 80, wherein the step of retrieving a value uses  
2          an identity of a requester of the application user interface.

1   85. (Previously Presented) A method of generating an application user interface including a  
2          customizable tab-order property, the method comprising the steps of:  
3          accessing a page definition, the page definition including metadata characterizing the  
4          customizable tab-order property;

5 reading a value from a data record using the metadata, the data record being stored in a  
6 data repository physically remote from a client used to display the application  
7 user interface, the value being user modifiable and further characterizing the  
8 customizable tab-order property;  
9 generating HTML responsive to the value; and  
10 including the HTML in the application user interface, the application user interface being  
11 an interface to an internet application.

1 86. (Previously Presented) The method of claim 85, wherein the customizable tab-order property  
2 is a customizable tab-over property.

1 87. (Previously Presented) The method of claim 85, wherein the data record includes  
2 configuration data.

1 88. (Previously Presented) The method of claim 85, further including displaying the application  
2 user interface using standard web browser protocols.

1 89. (Previously Presented) The method of claim 85, wherein a state of the customizable tab-  
2 order property persists between a generation of the application user interface and another  
3 generation of the application user interface.

1 90. (Previously Presented) The method of claim 85, further including identifying a requestor of  
2 the application user interface, wherein the step of reading a value is responsive to an  
3 identity of the requestor.

1 91. (Previously Presented) A method of generating an application user interface configured for  
2 delivery from a server to a client, the method comprising the steps of:  
3 receiving, at the server, a request for the application user interface from the client, the  
4 application user interface including a user interface element;  
5 identifying the requester of the application user interface;  
6 accessing a page definition, the page definition including metadata and defining the  
7 application user interface;  
8 retrieving, using the metadata and the identity of the requester, a value relating to a user  
9 customizable tab-order property of the user interface element, the value being  
10 stored in a data repository physically remote from the client;  
11 generating HTML or Java script using the value; and  
12 including the HTML or Java script in the application user interface.

1 92. (Previously Presented) The method of claim 91, wherein the user customizable tab-order  
2 property is a user customizable tab-over property.

1 93. (Previously Presented) The method of claim 91, further including displaying the application  
2 user interface at the client using standard web browser protocols.

1 94. (Previously Presented) A computer readable medium including an internet application, the  
2 internet application comprising:  
3 metadata defining an application user interface, the application user interface including a  
4 user interface element with a user customizable tab-order property, the application

5 user interface configured for delivery to a client and configured to operate as an  
6 interface between a user and the internet application;  
7 a user interface generator configured to generate the application user interface using a  
8 user modifiable data record stored in a location physically remote from the client,  
9 the user modifiable data record configurable to characterize the user customizable  
10 tab-order property; and  
11 a configuration system configured for a user to modify the user modifiable data record.

1 95. (Previously Presented) A computer readable medium including an internet application, the  
2 internet application comprising:  
3 an application designer configured to develop an application user interface, the  
4 application user interface including a user interface element with a user  
5 customizable tab-order property, the application user interface configured for  
6 delivery to a client and configured to operate as an interface between a user and  
7 the internet application;  
8 a user interface generator configured to generate the application user interface using a  
9 user modifiable data record stored in a location physically remote from the client,  
10 the user modifiable data record configurable to characterize the user customizable  
11 tab-order property; and  
12 a configuration system configured for a user to modify the user modifiable data record.

1 96. (Previously Presented) An application execution system comprising:  
2 means for supporting an internet application;

3 means for generating an application user interface using a user modifiable data record  
4 configured to store data characterizing a user customizable tab-order property;  
5 and

6 means for providing the application user interface to a user, the application user interface  
7 including a user interface element, the application user interface configured as an  
8 interface between the internet application and the user, the user interface element  
9 including the user customizable tab-order property, the user interface element  
10 configured for delivery to a client over a computer network.